

**ABSTRACT**

5 An electrical component assembly and method for the fabrication of the assembly in which particles are affixed to metal contact surfaces and pressure is applied to cause the particles to penetrate into at least one of the metal contact surfaces. In one method, hard particles are applied to one of the metal surfaces by electroplating the particles in a plating bath. In another method, the hard particles are applied to a non-conductive adhesive layer positioned between an electronic component and a substrate. Once pressure is applied to either the electronic component on the substrate, a permanent, electrically conductive bond is formed.